The LEAN Payload Integration Process

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It is recognized that payload development and integration with the International Space Station (ISS) can be complex. This streamlined integration approach is a first step toward simplifying payload integration; making it easier to fly payloads on ISS, thereby increasing feasibility and interest for more research and commercial organizations to sponsor ISS payloads and take advantage of the ISS as a National Laboratory asset.

The streamlined integration approach was addressed from the perspective of highly likely initial payload types to evolve from the National Lab Pathfinder program. Payloads to be accommodated by the Expedite the Processing of Experiments for Space Station (EXPRESS) Racks and Microgravity Sciences Glovebox (MSG) pressurized facilities have been addressed. It is hoped that the streamlined principles applied to these types of payloads will be analyzed and implemented in the future for other host facilities as well as unpressurized payloads to be accommodated by the EXPRESS Logistics Carrier (ELC). Further, a payload does not have to be classified as a National Lab payload in order to be processed according to the lean payload integration process; any payload the meets certain criteria can follow the lean payload integration process.